

DIGITAL IDENTITY

Competitor Leaderboard

Prepared for Experian



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1.1 Why Read This Report

This report details several vendors active in the digital identity space. As stakeholders increasingly recognise the revenue opportunities to be gained from deployment, so has the number of players specifically targeting the digital identity area grown. This report is not intended to provide comprehensive coverage of all the vendors operating in this market, but introduces the reader to 15 digital identity vendors that Juniper Research considers leaders in the market.

Juniper Research is a Europe-based provider of business intelligence. We specialise in providing high-quality data and fully researched analysis to manufacturers, financiers, developers and service/content providers across the communications sector. Juniper Research is fully independent and able to provide unbiased and reliable assessments of markets, technologies and industry players. Our team is drawn from experienced senior managers with proven track records in each of their specialist fields.

Key Digital Identity Market Takeaways

Identity and Fraud Are Becoming Synonymous

Trust is not a transactional feature of a digital identity system between identity creators and identity subjects, but rather, it is an inbuilt part. Given the unprecedented impact of the COVID-19 pandemic on eCommerce volumes, the advent of remote/hybrid working and the demand for eGovernment services, digital identity's tie with privacy and security has become much more visible. An ever-increasing number of fraudulent activities highlights the need to ensure customer security and protection of personal and businesses data for integrity of digital identity systems. Fraud and digital identities are closely intertwined, also because preventing fraud involves getting the right identity datapoints, understanding their significance and acting upon the related findings.

Governments Will Ramp Up Their Digital Identity Efforts

Government regulations and initiatives around digital identity are a vital force shaping the market landscape. Success of eGovernment services is largely dependent on a mechanism of identifying citizens/users in an assured manner, usually via striving to create trusted identities. Even prior to COVID-19, governments around the globe were employing digital identity-related initiatives in areas other than eGovernment services, such as border controls and telehealth. Compelled by the challenges faced in terms of cybersecurity and citizen trust in identity initiatives, governments will increasingly collaborate with third-party vendors to come up with solutions with better usability and security.

Identity Verification Use Cases and Underlying Technologies Will Continue to Dominate the Market

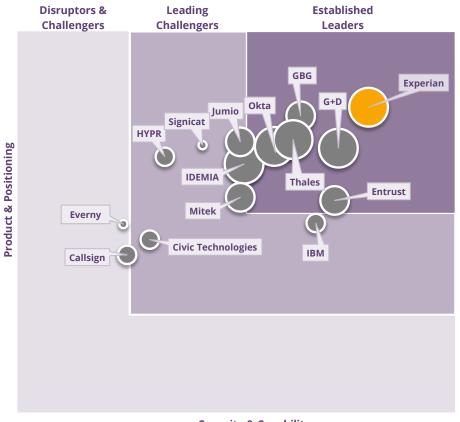
Verification is one of the key areas affecting the digital identity market, mostly owing to the catalyst power of the pandemic digitalising transactions across all industries and business verticals. The solutions and use cases of digital identity verification (ie, login, anti-fraud, and decentralised identity) are numerous, as secure and convenient customer onboarding has been at the forefront of any critical digital engagement. These use cases and underlying technologies, such as biometrics, lend themselves to different industries and verticals and so, they will continue to enjoy customer uptake for the foreseeable future.





Figure 1: Juniper Research Competitor Leaderboard for Digital Identity

Juniper Research Competitor Leaderboard Digital Identity Vendors



Capacity & Capability

Source: Juniper Research



Founded in 1980, Experian is a leading provider of identity solutions for the digital ecosystem. It has a long and impressive history, based on its very strong offering in credit.

Experian's cloud-based and agile CrossCore platform is a unique key selling point to its services. The system enables the ability to manage cross-party integrations from a single API, which is a significant plus, enabling strong cost and time reductions when deploying solutions operationally.

CrossCore's multi-solution and multi-vendor approach reveals a comprehensive understanding of the fraud issues that customers across different industries face. In this sense, through its platform, Experian manages to provide great flexibility via adapting workflows supported by advanced decisioning processes powered by ML.

Experian's layered fraud and identity management solutions lend themselves to superior UX, which is vital for the future of frictionless fraud management systems. Identity needs to be seamless to succeed, and Experian has both the breadth and depth of service provision to achieve this.



1.1.1 Experian



Juniper Research interviewed David Britton, VP of Global Strategy, Identity and Fraud and Kathleen Peters, Chief Innovation Officer, Experian Decision Analytics in January 2022.

Table 2: Juniper Research Competitor Leaderboard Heatmap: Digital Identity Vendors

	Financial Performance & Size in Segment	Experience in Sector	Operations	Marketing & Branding Strength	Partnerships, Mergers & Acquisitions	Identification Coverage	Authentication Coverage	Customers & Deployments	Compatibility & Interoperability	Future Business Prospects in Digital Identity	Market Presence
Experian											

Source: Juniper Research

i. Corporate Profile

Founded in 1980, Experian is a global information services company which provides data and analytical tools to client companies. The company has B2B and B2C services, with the former contributing 76% to Experian's global revenue. Experian is listed on EXPN (London Stock Exchange) and is a constituent of the FTSE 100 Index. For the fiscal year ended on 31st of March 2021, Experian's revenue was approximately USD \$5,37 billion. Key executives of the company include Mike Rogers (Chairman), Brian Cassin (CEO), Lloyd Pitchford (CFO), Kerry Williams (COO), and Steve Wagner (Global Managing Director, Experian Decision Analytics).

B2B services involve the company's flagship service, credit reporting included in data segment. Others include risk decisioning and fraud solutions which fall under the decisioning segment. Evidence from the company's latest annual report suggests that the company's fraud solutions offering is an increasingly important part of its portfolio, with demand for fraud prevention noted as a driver for segment growth, particularly in North America.

The company has a long tradition of providing identity proofing services, and around 19%-26% of the group's revenue comes from the Decision Analytics division, that is attributed to identity checking and verification services. Despite the slight decline of decisioning global revenue share, the company managed to grow fraud and identity management services in Latin America, which included new clients for Experian's CrossCore identity and fraud management platform. In a similar vein, although B2B revenue faced a relative decline in the UK and Ireland, there was good demand for these services.ⁱⁱⁱ



Table 3: Experian Financial Snapshot (\$m) FY, (2019-2021)

	FY 2021	FY 2020	FY 2019
Revenue	\$5,372	\$5,179	\$4,861
Profit Before Tax	\$1,077	\$957	\$942
Decisioning Revenue Share (%)	19	23.9	25.6

Source: Experian

By the acquisition of 41st Parameter, a provider of device identification technology for web fraud detection in 2014, Experian's moved to provide the most complete set of fraud detection and identity authentication capabilities in the market. The company also publishes the Global Identity and Fraud Report annually; analysing digital fraud trends.

ii. Geographical Spread

Headquartered in Dublin, Ireland, the company employs 20,000 people operating in 44 countries across the globe.

iii. Key Clients and Strategic Partnerships

 Experian's recent acquisitions illustrate the company's emphasis on data and analytics services. In 2019, the company completed eight acquisitions including those of Compuscan, a leading provider of credit information and decision analytics across Sub-Saharan Africa, for USD \$263 million. Such acquisitions continued in 2020, with the acquisition of a 60% stake in the Risk Management division of AFS (Arvato Financial Solutions) which was completed on 30th June 2020. With this investment, Experian was able to expand risk, anti-fraud, and identity management services across Germany, Austria, and Switzerland. Similarly, in November 2020, Experian acquired Tapad (Tapad, Inc), a company providing resolution of digital online identities, and in March 2021, it acquired the whole of the issued share capital of BrScan (BrScan Processamento de Dados e Tecnologia Ltda), a company providing fraud and identity solutions in Brazil.

- Although not all are publicly disclosed, the company has a wide variety of strategic partners, some of which are BioCatch, Ekata, Emailage, Mitek, Daon, Onfido, and Acuant.
- Experian's customers include financial institutions, eCommerce merchants, health providers, and public sector organisations.
- The company's main digital identity and fraud management risk product platform, CrossCore Platform, was first launched in 2016. It, helps secure new commercial customers and contracts, particularly, including in Latin American and Asian markets. As of 2019, there were approximately 500,000 transactions made monthly via the platform. The platform is currently being used by over 250 clients worldwide.

iv. High-level View of Offerings

Experian's identity verification and fraud management encompasses large data sets about people and devices to recognise customers and prevent fraudulent activities. Products such as Precise ID Suite (integrated into CrossCore) is a collection of fraud risk models to detect first- and third-party, as well as synthetic identity fraud. The solution, for instance, uses algorithmic identification of potential first-party fraud based on historical identity data and credit usage patterns across a wide array of data assets; through employment of risk scoring and stepping up authentication for higher fraud risk scenarios.iv

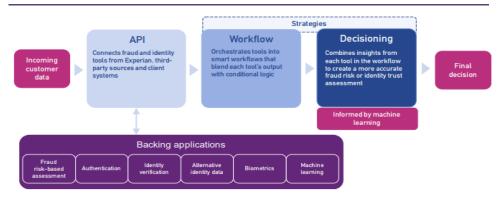
CrossCore is Experian's all-in-one solution for identity management and fraud prevention. It is a plug-and-play solution giving customers the ability to connect their own products to any Experian product, as well as third-party vendor products. This solution delivers such ability via providing common access through a flexible API. The API allows the clients to submit data to Experian, which then is integrated with the third-party solutions through Experian's orchestration. The company manages the orchestration and risk assessment processes and feeds them into the CrossCore to be processed by ML (machine learning) capabilities. As such, cost of service management is lowered, and new solutions are easily deployed and layered. With its cloud-based infrastructure, customers can scale up and deploy their solutions faster. The process of the platform is shown in figure 4.



The CrossCore platform was updated in 2020 to provide ML capability to enhance identity verification processes. This new capability 'has proven to detect 90% of fraud and [customers] would need to work 40% less referrals than they would otherwise," by checking a wide range of contextual features of the identity and transactional events. One of the key advantages of the platform is the flexibility it provides: customers are enabled to specify services needed and their order based on the workflow logic and decision criteria for each transaction, greatly reducing friction and enhancing CX. With the platform, business customers are also empowered to use self-service workflows and reporting mechanisms, allowing them to adapt their strategies.

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Figure 4: CrossCore Platform Infrastructure and Processes



Source: Experian

The key differentiators of the CrossCore Platform are:

- Single API: At the disposal of customers, integration of a single API allows them to conduct real-time assessments of identity verification, authentication, and fraud risk for the user journey (account origination, login/account maintenance, non-monetary and transactional activities). Additionally, it allows multiple sign-on access from a single point.
- Partner Integration: The platform enables service connections between Experian, customers' internal systems, and third-party vendor solutions. Such integration also allows non-technical, contractual and vendor due diligence via Experian; saving customers time and money in service deployment.
- Workflow Decisioning and Orchestration: CrossCore supports customers to pick
 and choose its workflows to action against different types and emerging cases of
 fraud. Flexible configuration of the workflow to target particular transactions. The
 platform also invokes calls to various services (ie, bank and/or third-party vendor
 solutions) based on conditional logic, where multiple data sets and/or services can
 be called either sequentially or dynamically.
- Advanced Decisioning: Thanks to its ML infrastructure, CrossCore collects inputs
 from each workflow tool to perform advanced analytics. Along with workflow
 orchestration, this enables customers to make real-time risk decisions throughout
 the customer lifecycle. Customers can access these real-time results, case details
 and recommendations provided by Experian in a single view; reducing complexity
 and workloads via optimisation of results.

'What excites us the most is the aggregation component; this aggregated set of solutions also helps us with the technology integration piece. CrossCore has provided us with a base to stitch different digital identity components together.' – David Britton on CrossCore

Beyond its CrossCore platform, the company has other fraud solutions such as FraudNet, which is integrated into the platform. FraudNet is designed to detect fraud in a fast and multi-layered approach. It detects suspected fraud events, makes informed decisions, and performs link analysis to recognise multiple events with common themes. The solution includes Device Intelligence DeviceInsight, a tagless



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and cookieless device recognition solution. DeviceInsight assigns a device ID to every event by collecting device information directly from the device, minimising callouts and eliminating pop-ups. In addition, Mobile SDKs are used for device identification at a granular level to prevent fraud on mobile devices in native apps. FraudNet also utilises third-party data enrichment to provide better insights to fraud investigations with added context.



1.2 Juniper Research Leaderboard Assessment Methodology

Juniper Research's approach in this assessment of digital identity vendors is to use a standard template to summarise vendor capability. This technique, which applies quantitative scoring to qualitative information, enables Juniper Research to assess each vendor's capability and capacity as well as its product and position in the digital identity space. The resulting matrix exhibits Juniper Research's view of relative vendor positioning.

1.2.1 Limitations & Interpretation

Our assessment is based on a combination of quantitative measures where they are available (such as revenue and numbers of employees) that will indicate relative strength, as well as of qualitative judgement based on available market and vendor information as published and gleaned during our extensive set of one-to-one CxO-level interviews right across the market. We have used publicly available information to arrive at a broad, indicative positioning of vendors in this market, on a 'reasonable efforts' basis. However, we would also caution that our analysis is almost by nature based on incomplete information and therefore for some elements of this analysis we have had to be more judgemental than others. For example, with some vendors, less detailed financial information is typically available if they are not publicly listed companies, although we have detailed data on the scale of venture capital investment.

We also remind readers that the list of vendors considered is not exhaustive for the entire market but rather selective. Juniper Research endeavours to provide accurate information. Whilst information or comment is believed to be correct at the time of publication, Juniper Research cannot accept any responsibility for its completeness or accuracy; the analysis is presented on a 'reasonable efforts' basis.

The Juniper Research Competitor Leaderboard above compares the positioning of Digital Identity vendors based on Juniper Research's scoring of each company against the above criteria that Juniper Research has defined. The Leaderboard is designed to compare how the vendors position themselves in the market based on these criteria; relative placement in one particular unit of the Leaderboard does not imply that any

one vendor is necessarily better placed than others. For example, one vendor's objectives will be different from the next and the vendor may be very successfully fulfilling them without being placed in the top right box of the Leaderboard, which is the traditional location for the leading players.

Therefore, for avoidance of doubt in interpreting the Juniper Research Competitor Leaderboard, we are not suggesting that any single cell implies in any way that a group of vendors is more advantageously positioned than another group, just differently positioned. We additionally would draw the reader's attention to the fact that vendors are listed alphabetically in a unit of the Leaderboard and not ranked in any way in the cell in question.

The Leaderboard is also valid at a point in time: January 2022. It does not indicate how we expect positioning to change in future, or indeed in which direction we believe that the vendors are moving. We caution against companies taking any decisions based on this analysis; it is merely intended as an analytical summary by Juniper Research as an independent third party.

Finally, we would point out that the Leaderboard is based on a global view consolidated across the digital identity space; any Leaderboard produced for one specific region or segment would by definition show different vendor positioning. Indeed, not every vendor would appear on such a Leaderboard.





Table 5: Juniper Research Competitor Leaderboard Scoring Criteria

Category	Scoring Criteria	Relevant Information
Capability & Capacity	Financial Performance & Size in Segment	Revenue derived from digital identity solutions over recent years, including year-on-year growth.
	Experience in Sector	The date in which the company started operating in the digital identity market. Additionally, Juniper Research will consider the extent of activities during this time.
	Operations	The number of regional offices that the company has worldwide, in relation to digital identity, It will also include the extent of service provision at a regional level.
	Marketing & Branding Strength	This is a measure of the vendor's corporate branding and marketing strength.
	Partnerships, Mergers & Acquisitions	Any corporate partnerships that support marketing, and/or delivering digital identity solutions, as well as details of any relevant mergers or acquisitions.
Product & Position	Identification Coverage	The number of channels which are supported for identification, as an indicator of how easy it will be for a business to use the digital identity solutions.
	Authentication Coverage	The number of channels which are supported for authentication, as an indicator of how easy it will be for a business to use the digital identity solutions.
	Customers & Deployments	Any details of customer bases which utilise the digital identity services offered.
	Compatibility & Interoperability	Details of how the digital identity service is compatible with operating systems, identity protocols etc.
	Future Business Prospects in Digital Identity	Juniper Research's assessment of the future prospects of the business in the digital identity market.
Market Presence	Market Presence	This reflects the size and revenue of each vendor within the digital identity space.

Source: Juniper Research



About Experian



Experian unlocks the power of data to create opportunities for consumers, businesses and society. At life's big moments – from buying a home or car, to sending a child to college, to growing a business exponentially by connecting it with new customers – we empower consumers and our clients to manage their data with confidence so they can maximize every opportunity.

We gather, analyse and process data in ways others can't. We help individuals take financial control and access financial services, businesses make smarter decision and thrive, lenders lend more responsibly, and organizations prevent identity fraud and crime.

For more than 125 years, we've helped consumers and clients prosper, and economies and communities flourish – and we're not done.

Our 20,000 people in 44 countries believe the possibilities for you, and our world, are growing. We're investing in new technologies, talented people and innovation so we can help create a better tomorrow. Learn more at www.experianplc.com.

About Juniper Research



Juniper Research was founded in 2001 by the industry consultant Tony Crabtree, in the midst of the telecoms and dot-com crash. The business was fully incorporated in February 2002 and has since grown to become one of the leading analyst firms in the mobile and digital tech sector.

Juniper Research specialises in identifying and appraising new high growth market sectors within the digital ecosystem. Market sizing and forecasting are the cornerstones of our offering, together with competitive analysis, strategic assessment and business modelling.

We endeavour to provide independent and impartial analysis of both current and emerging opportunities via a team of dedicated specialists - all knowledgeable, experienced and experts in their field.

Our clients range from mobile operators through to content providers, vendors and financial institutions. Juniper Research's client base spans the globe, with the majority of our clients based in North America, Western Europe and the Far East. Find out more at www.juniperresearch.com



Endnotes



ⁱ Experian plc - Business-to-Business

ii experian-full-year-fy21-results-final.pdf (experianplc.com)

ⁱⁱⁱ Ibid

iv Experian Precise ID | Fraud Detection Software | Identity Verification

^v <u>CrossCore | Experian Business</u>

vi CrossCore | Experian Business